Efficacy of group obstetric consultation in mild to moderate anxiety of pregnancy

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ABSTRACT

Anxiety is a common mental disorder of pregnancy leading to adverse maternal and fetal pregnancy outcomes. Hence, preparation of effective approaches for reduction of anxiety is an issue of importance. Accordingly, this study was performed to determine the efficacy of group obstetric consultation on anxiety control in pregnant women in non-severe cases. In this randomized clinical trial, 90 pregnant women attending to a Health Care Center in Tehran, Iran from April 2010 to March 2012 with first pregnancy aging from 18 to 35 years and gestational age of eight to eighteen weeks were evaluated. They were randomly assigned into consultation and control groups. The consultation group was designed according to the different needs of pregnancy for five sessions in five weeks (each session 60 to 90 minutes) and the control group only received routine perinatal care. There was statistically significant difference between after-intervention scores in anxiety state (P=0.014); but the anxiety trait showed no difference (P=0.19). Also the changes in trait anxiety scores was more in consultation group compared with control group (P=0.002) that was also seen for anxiety state scores (P=0.0001). Totally, it may be concluded that group consultation is effective in reduction of state and trait anxiety in pregnant women with non-severe non-pathological cases of anxiety.

Keywords*:* Consultation; Anxiety; Pregnancy

INTRODUCTION

Pregnancy, as a normal life event, may result in behavioral and physiological impacts [1]. Among these alterations, anxiety may be an important issue leading to the fear and bother for pregnant women [2]. Regardless of high quality maternal care, mothers may be hard to adapt with the prompt changes seen in this course [3]. Pregnancy-induced anxiety may be seen in one out of five mothers [4]. Anxiety in pregnancy may result in increased nausea and vomiting, aggravation of cardiovascular problems, increased probability for premature rupture of membrane and increased presence of risk factors for fetal death [5, 6]. On the other hand, long-term health effects in infantile and childhood periods may be continued as infantile abdominal colic and abnormal social behaviors [7, 8, 9]. Also higher incidence rates of some psychiatric consequents such as postpartum depression are reported [10].

Positive constructive thinking during the pregnancy may be an important tool for reduction of anxiety in pregnancy [11] and midwifery active performance such as psychological care via different routes with various types of role performing may be a useful tool for reduction of anxiety in pregnancy as well as other situations [12]. It should be mentioned that paying attention to psychological problems and alterations during the pregnancy would result in better outcomes and decreased complications especially in non-pathological anxiety cases. Accordingly in this study the efficacy of group obstetric consultation on non-severe anxiety in pregnant women was evaluated.

MATERIAL AND METHODS

In this randomized clinical trial, 90 pregnant women attending to a health care center in Tehran, Iran from April 2010 to March 2012 were enrolled. Women in pregnancy weeks of eight to eighteen who were attending regularly for routine perinatal care who had no severe and pathological anxiety (according to Spielberger State-trait Anxiety Questionnaire), were included if they were aged from 18 to 35 years, primiparous, with minimally secondary school educational level, and without known psychiatric disorder or somatic problems with symptoms mimicking the anxiety (such as hyperthyroidism). The exclusion criteria were acquiring more than ten scores by Beck Depression Inventory, participation in unauthorized perinatal care programs, and lack of full consideration of study protocol (more than one absent session). The informed consent form was signed by all the participants and the Helsinki Declaration was respected all over the study.

According to the severity of anxiety, the mothers were divided into two groups of low and moderate intensity with indicators of one and two, respectively. Then the mothers were randomly assigned as five-subject blocks (one/two) in intervention or control group. After completion of each ten-subject group, the training course was initiated. The training sessions were performed by single-educator with duration of 60 to 90 minutes once a week for five weeks. The women in control group were only receiving the routine perinatal care without participation in group training sessions.

Consultation included intimate contact between educator and pregnant mother, freedom in expression of feelings, releasing expanded information about physiological alterations during the pregnancy and sufficient time for replying to the questions. Five items were mentioned in each session (Table 1). Also for increasing the efficacy of consultation on pregnancy anxiety, some functional methods with cognitive approaches were used (Table 2).

Data analysis was performed among 90 subjects including 46 mothers in control group and 44 women in intervention group. Ten percent loss to follow-up was due to no repeat attendance and pregnancy complications including abortion. Data analysis was performed by SPSS (version 13.0) software [Statistical Procedures for Social Sciences; Chicago, Illinois, USA]. Independent-sample T, Exact-Fisher, Mann-Whitney, and Chi-Square tests were used for comparison and were considered statistically significant at P values less than 0.05.

Table 1- Items mentioned in training course

Topic
1. Role and importance of perinatal care
2. Physiological alterations of pregnancy and common complaints
3. Importance of maternal nutrition, personal health, and psychological health
4. Introduction of labor mechanism, importance and advantages of normal vaginal delivery, and symptoms before labor
5. Importance of postpartum care, neonatal care, breastfeeding, and family planning

Table 2- Functional methods with cognitive approaches

Method
Information release The educator developed some information for mothers about anxiety, its association with pregnancy, its consequences in pregnancy and labor, and aim of the anxiety control to develop this thought that anxiety control would require self-assistance and active participation
Recognition of negative thoughts Help to the mothers for determination of negative thoughts about pregnancy and encouraging them to describe the bothersome event or situation
Help to the mother to change the negative thoughts and substitution of them with positive mental beliefs Help by the educator without jurisdiction about mother and encouraging her to think about solving the problems
Training of relaxation, respiratory and stretching exercises
Social support Providing call number for mothers as a mediator between anxiety situations and reactions

RESULTS

Maternal age, spouse's age, marital years, and gestational age were alike among two groups (Table 3). Also the educational levels of mothers, husbands, family income, maternal job, and spouse's job, and residence location were matched among the groups (P > 0.05). Before intervention, 50 percent 47.8 percent in intervention and control groups had low grade anxiety, respectively (P > 0.05). Also the mean state and trait anxiety scores were alike before the intervention (Table 4). However the post-intervention anxiety state scores were differed among two group; the trait anxiety scores were same (Table 4). The mean difference of both state and trait scores was significantly differed across two groups (Table 5).

Table 3- Distribution of demographic variables in two groups

Variable	Group*		P Value
	Intervention	Control	
Maternal Age	22.52 (±2.72)	22.41 (±2.75)	*0.85*
Spouse's Age	27.61 (±3.76)	27.57 (3.98)	*0.95*
Marital Years	2.11 (±1.28)	2.13 (1.32)	*0.95*
Gestational Age	12.34 (2.26)	11.8 (2.17)	*0.26*

* Data are presented as mean (± Standard Deviation)

Table 4- Distribution of scores in two groups

Variable		Group*		P Value
		Intervention	Control	
State	**Before**	40.89 (±7.59)	40.28 (±7.81)	*0.71*
	After	34.48 (±12.77)	40.57 (±9.48)	*0.01*
Trait	**Before**	40.91 (±7.32)	39.48 (±7.56)	*0.36*
	After	36.93 (±10.76)	39.65 (±8.74)	*0.19*

* Data are presented as mean (± Standard Deviation)

Table 5- Distribution of mean score differences in two groups

Variable	Group*		P Value
	Intervention	Control	
State	6.4 (±8.66)	0.28 (±3.25)	*0.0001*
Trait	0.17 (±2.38)	3.97 (±7.91)	*0.002*

* Data are presented as mean (± Standard Deviation)

DISSCUSSION

Anxiety control in pregnancy may be a beneficial attempt to improve both maternal and fetal outcomes. This study demonstrated that the five-week group obstetric consultation may significantly alleviate the anxiety in non-sever cases in both aspects of state and trait. This matter was also reported by El-Mohandes et al [13]. Joseph et al also were reported that a clinic-based behavioral intervention significantly reduced psychosocial and behavioral pregnancy risk factors among women receiving prenatal care [14]. Similarly, Toughyani et al [15] demonstrated that group training in pregnancy via 14 training sessions with prepared lesson plans would improve maternal performance. The result of the study performed by Park et al [11] was also in congruence with our findings showing a significant role for positive thoughts on behavioral and psychological accommodation during pregnancy. However the training interventions before event may be effective, the study of training in women who were experienced traumatic labor showed no significant effect without respecting the duration of training course [16]. Ryding et al [17] showed no effective role for consultation in control of labor anxiety. This may be due to recall phenomenon when the women were asked to list their fears at initiation in contrast to their request for hiding the matters in their ego. Also the less holistic approach and focusing on fears leading to anxiety may result in incongruence between results.

Randomized intervention with block division was an important element of this study letting the increased accuracy and generalization of outcomes. Also the confounding variables were matched among the groups to increase the

reliability of results. The group consultation techniques used in this study instead of individual approaches is another empowering factor in current study. Also, shortening the intervention duration resulted in modifying the effect of synchronization factor on intrinsic validity of the study and separation of intervention days prohibited the distribution of intervention contents. Single educator with single training content also was an important point of this study.

According to the obtained finings, the most important mechanism for effect of consultation on pregnancy anxiety control may be finding the causes in pregnant mothers and providing rational responses for them. Providing assurance, encouragement and support, desensitization, and reinforcement of believes and attitudes are the most important factors for increasing the efficacy of consultation [18, 19]. Anxiety control with consultation may be due to cognitive reconstruction with perfect rational recognition of the situation and perceiving less fear and risks about it. The consultation may affect the beliefs and activate the cognitive outcomes and subsequently would influence the behaviors, emotions and physiological responses [20, 21]. However even single treatment sessions may be beneficial when a group intervention is used [22]; the low symptom level at baseline; the potential effectiveness of the control condition; and the brevity of the intervention are also important issues [23] and a group intervention might lead to an improvement in the biological stress response of pregnant women with non-severe anxiety [24] that may also be extended to their partners [25].

CONCLUSION

Totally, according to the obtained results, it may be concluded that group obstetric consultation would be effective in reduction of anxiety in pregnant women. However the application of this finding is only restricted to mild and moderate cases of pregnancy-induced anxiety. Further studies should be carried out to determine the effectiveness of this method in treatment of severe and pathological cases.

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